

New claims 3 through 8 are added as follows:

3. A transgenic mouse whose somatic and germ cells comprise a disruption in an endogenous H2-Oa gene, wherein disruption is generated by targeted replacement with a non-functional H2-Oa gene, and wherein said disruption results in said mouse having an increase in the amount of serum IgG1 at 10 months of age as compared to wild-type H2-Oa mice.

4. The mouse of claim 3, wherein said mouse is fertile and transmits the non-functional H2-Oa gene to its offspring.

5. The mouse of claim 3, wherein the non-functional H2-Oa gene has been introduced into an ancestor of the mouse at an embryonic stage by microinjection of altered embryonic stem cells into mouse blastocysts.

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6. A method for producing a transgenic mouse whose somatic and germ cells comprise a disruption in an endogenous H2-Oa gene, wherein said disruption is generated by targeted replacement with a non-functional H2-Oa gene, said method comprising:

- a) introducing a H2-Oa gene targeting construct comprising a selectable marker sequence into a mouse embryonic stem cell;
- b) introducing said mouse embryonic stem cell into a mouse blastocyst;
- c) transplanting said blastocyst into a recipient mouse;
- d) allowing said blastocyst to develop to term;
- e) identifying a transgenic mouse whose genome comprises a disruption of an endogenous H2-Oa gene in at least one allele; and

- f) breeding the mouse of step (e) to obtain a transgenic mouse whose genome comprises a homozygous disruption of the endogenous H2-Oa gene,

wherein said disruption results in said mouse having an increase in the amount of serum IgG1 by ten months of age as compared to wild-type H2-Oa mice.

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7. The method of claim 6 wherein the introducing of step (a) is by electroporation or microinjection.
8. An isolated cell line derived from the transgenic mouse of claim 3.
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Respectfully submitted,

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DATE: 28 February 2002